standard confidence levels (see Ernst R. Berndt, The Practice of Econometrics: Classic and Contemporary, Reading Massachusetts: Addison-Wesley Publishing Co., 1990, Table 9.2 p. 473). In addition, the estimated elasticity of substitution between capital and labor, in a four-factor translog production function presented by Berndt on p. 475, is 0.97, which is very close to the elasticity of substitution of 1.0 that is characteristic of the Cobb-Douglas production function.

The ETI report closes its criticism of the use of the Cobb-Douglas production function on page 21 with the sentence, "Although it is not clear how significant the bias is from the use of the Cobb-Douglas model, it is clear that the analysis involves simplified assumptions dating back over 60 years." It is worth noting that not only does the ETI report admit that the significance of the bias is unclear, it does not speculate on the direction of any bias. The only thing that is clear to the authors of the ETI report is that the Cobb-Douglas production function is over 60 years old. Interestingly enough, the source cited in the ETI report states that the translog production function introduced in 1970 is "identical to the production function considered by Heady several decades earlier." (Berndt, p. 458)

Perhaps the best response to the criticism raised by the ETI report is contained in a 1988 book by Zvi Griliches (former Chairman of the Department of Economics at Harvard University, 1984 Vice President of the American Economic Association, 1965 winner of the John Bates Clark Medal for the best economist under the age of 40, and Fellow of the Econometric Society whose distinguished career has been devoted to the study of productivity): "There is also the issue of functional form for the estimated production

functions and the associated productivity computations. I could never take this range of issues seriously." (Zvi Griliches, Technology, Education, and Productivity, New York: Basil Blackwell Inc., 1988, pp. 306-307.)

ETI Contention - (Page 21) "Finally, the Godwins Report ignores the usual uncertainty that is associated with survey results measured by calculated standard errors."

Response - This criticism applies to the actuarial analysis and has been addressed on pp. 10-11 of this Supplemental Report.

F. Response to Miscellaneous Comment by MCI

MCI Contention - (Page 6, and FN 8)

"If exogenous treatment is afforded to one portion of the compensation package, an asymmetrical relationship will be afforded carriers under price caps. This will allow carriers to offer increased OPEB, for which they would receive exogenous treatment, and decrease other forms of compensation.[8] (footnote 8: In fact, the USTA study itself predicts a similar situation where SFAS-106 costs increase, the wage rate in the economy will fall, offsetting the increase in labor costs associated with SFAS-106.)"

Response -

Here it is appropriate to comment only on footnote 8.

In the Godwins Report prepared for USTA, the introduction of SFAS 106 leads to a reduction in the wage rate, relative to the wage rate that would have prevailed in the absence of SFAS 106. The fall in the wage rate is not a consequence of "an asymmetrical relationship [that] will be afforded carriers under price caps." The wage rate falls for all firms in the economy, even those firms that do not offer OPEBs covered by SFAS 106. The predicted nationwide fall in the wage rate is a market equilibrium phenomenon reflecting the nationwide fall in the demand for labor at any given wage rate, as explained on page 24 of the Godwins Report. Because the fall in the wage rate is an equilibrium phenomenon, it is beyond the control of any single firm or small group of firms.

Appendix A

Calculation of "Standard Error" of Average BLI
(Description of Methodology)

In response to a contention raised by the Ad Hoc Telecommunications Users Committee, we have provided an analysis which was performed to determine whether "the uncertainty that is associated with survey results" could have materially affected the results outlined in the Godwins Report. The methodology employed in that analysis is described below.

The Godwins BLI database is extensive (830 plans in all) and holds data on Plans for 18 million participants out of a universe of 38 million participants. Statistical sampling error should have been minor. Godwins tested this hypothesis by calculating standard errors for the pre-65 and post-65 average BLI's. The analysis took account of the six industry groups used in the USTA Report, the BLI weightings within each industry group, the weightings of the industry-group BLI's in developing the final averages, and of the finite universe effect whereby dispersion tends to zero when a sample enlarges to exhaust the universe.

For each industry group (i=1, i=2, ... i=6) a variance was calculated for the set of BLI_j's (j=1, N_i) observed for the group, N_i being the number of Plans in the Godwins database for industry group i. Weighted means were used in the USTA study, and the variance for the weighted mean for industry group i was calculated as the variance of the observed BLI_j's times the sum of the squares of the weights based on participant counts in the plans included in the industry group. The Godwins database has information for substantial percentages of covered employees in each industry group. The total number of plans in each industry group, T_i, was taken as the number of plans in the Godwins database for the industry group, N_i, times the ratio of covered employment for the industry group in the economy (a GAO figure) to the covered employment included in the Godwins database for the industry group. A standard adjustment factor of $(T_i - N_i) / (T_i - 1)$ was applied to account for the "finite universe effect".

The estimate of the variance of the means was taken as the sum of the products of the square of the "GAO weights" times the estimates of the industry-group variances. The square root of the estimate is the measure of the dispersion of the means. Numerical results from the calculations are summarized on the chart attached hereto. We see that pre-65 and post-65 dispersions are minor when contrasted to their corresponding means.

Calculation of "Standard Error" of Average BLI's
(Results)

Industry Group number:	(1)	(2)	(3)	(4)	(5)	(6)	Total
Number of Plans in GODWINS' database:	446	6	78	31	222	47	830
Number of Employees covered by such Plans:	11,129,686	94,893	1,472,589	1,884,054	3,549,719	780,402	18,911,343
Number of covered employees in economy (GAO):	11,602,872	562,891	8,853,209	3,962,734	10,431,800	3,040,556	38,454,062
Pre Age 65							
Weighted mean BLI for group:	0.7232	0.7758	0.7974	0.4730	0.6721	0.5771	0.6898
Variance of BLI's in group:	0.049191	0.060456	0.041069	0.067315	0.040691	0.068032	
Variance of weighted mean for group:	0.000711	0.028462	0.002895	0.006361	0.000747	0.004062	
Variance adjusted for Finite Universe effect:	0.000029	0.024396	0.002419	0.003379	0.000494	0.003035	0.000227
					Dispersion of weighted mean:		0.015076
					Mean + 1 standard deviation:		0.7049
					Mean - 1 standard deviation:		0.6747
Post Age 65							
Weighted mean BLI for group:	0.2340	0.0604	0.2643	0.0603	0.1926	0.1267	0.2008
Variance of BLI's in group:	0.019851	0.022000	0.011883	0.011052	0.015966	0.018178	
Variance of weighted mean for group:	0.000287	0.010357	0.000838	0.001044	0.000293	0.001085	
Variance adjusted for Finite Universe effect:	0.000012	0.008878	0.000700	0.000555	0.000555	0.000811	0.000065
					Dispersion of weighted mean:		0.008080
					Mean + 1 standard deviation:		0.2089
					Mean - 1 standard deviation:		0.1927

Appendix B

Average Age / Average Service for Mature Populations

Promulgated from Varying Turnover and Retirement Assumptions

	< - Average Age ->								
	< - - - - - T2 - - - - - >			< - - - - - T6 - - - - - >			< - - - - - T10 - - - - - >		
Age of New Hires	RA 62	RA 63	RA 64	RA 62	RA 63	RA 64	RA 62	RA 63	RA 64
25	39.94	40.35	40.76	36.96	37.24	37.53	31.02	31.09	31.16
26	40.75	41.16	41.58	37.88	38.18	38.48	32.16	32.23	32.31
27	41.54	41.96	42.38	38.80	39.11	39.42	33.29	33.38	33.47
28	42.32	42.74	43.17	39.71	40.02	40.34	34.43	34.53	34.63
29	43.08	43.51	43.94	40.60	40.93	41.26	35.56	35.68	35.79
30	43.83	44.27	44.70	41.48	41.81	42.16	36.70	36.82	36.95
31	44.57	45.01	45.45	42.34	42.69	43.04	37.82	37.96	38.11
32	45.29	45.74	46.18	43.19	43.55	43.91	38.94	39.10	39.26
33	46.00	46.45	46.90	44.02	44.39	44.77	40.05	40.22	40.40
34	46.69	47.14	47.60	44.84	45.22	45.60	41.14	41.34	41.53
35	47.36	47.82	48.28	45.64	46.03	46.43	42.22	42.43	42.64

	< - Average Service ->								
	< - - - - - T2 - - - - - >			< - - - - - T6 - - - - - >			< - - - - - T10 - - - - - >		
Age of New Hires	RA 62	RA 63	RA 64	RA 62	RA 63	RA 64	RA 62	RA 63	RA 64
25	14.94	15.35	15.76	11.96	12.24	12.53	6.02	6.09	6.16
26	14.75	15.16	15.58	11.88	12.18	12.48	6.16	6.23	6.31
27	14.54	14.96	15.38	11.80	12.11	12.42	6.29	6.38	6.47
28	14.32	14.74	15.17	11.71	12.02	12.34	6.43	6.53	6.63
29	14.08	14.51	14.94	11.60	11.93	12.26	6.56	6.68	6.79
30	13.83	14.27	14.70	11.48	11.81	12.16	6.70	6.82	6.95
31	13.57	14.01	14.45	11.34	11.69	12.04	6.82	6.96	7.11
32	13.29	13.74	14.18	11.19	11.55	11.91	6.94	7.10	7.26
33	13.00	13.45	13.90	11.02	11.39	11.77	7.05	7.22	7.40
34	12.69	13.14	13.60	10.84	11.22	11.60	7.14	7.34	7.53
35	12.36	12.82	13.28	10.64	11.03	11.43	7.22	7.43	7.64

Appendix C

Additional Sensitivity Analysis

Extreme Parameter Values Leading to Low Estimates of the Percentage of Additional SFAS 106 Costs to be Met from Other Sources

Additional SFAS 106 Costs of Average Employer with SFAS 106 Liabilities

Labor Supply Elasticity	2% (a)	2% (b)	2% (c)	3% (a)	3% (b)	3% (c)	5% (a)	5% (b)	5% (c)
0.0	0.9	12.0	87.1	2.0	17.5	80.5	5.4	27.5	67.1
0.1	3.9	10.0	86.1	6.4	14.6	79.0	12.5	22.8	64.7
0.2	6.7	8.1	85.2	10.6	11.8	77.6	19.4	18.3	62.3
0.3	9.4	6.4	84.2	14.6	9.1	76.3	26.0	13.9	60.1

(a) reflected in GNP-PI
(b) financed by potential reduction in the wage
(c) to be met from other sources

price elasticity of demand = 3.0
share of labor costs in total cost in sector 1 = 0.78
share of labor costs in total cost in sector 2 = 0.78
initial fraction of labor employed in sector 2 = 0.4